

Exhibit B

NEW PLANS  
TOGETHER WITH ESTIMATES OF COST  
OF WORKS UPON DRAINAGE SYSTEM AND LEVEES  
NECESSARY FOR THE RECLAMATION OF  
RECLAMATION DISTRICT NUMBER 684.

Submitted by  
HUNTER & MORTON,  
Engineers.



February 16th, 1915.

To the Trustees,

Reclamation District No. 684,

Stockton, California.

Gentlemen:

We submitted you a report dated February 6, 1915, accompanied by map and profiles, in which we presented you considerable data re. all reclamation and drainage works of the District, and submitted our recommendation covering new work which should be done to perfect the drainage system of District and also strengthen the levees.

This recommended new work is set forth herein so that, when this report is adopted, this report will become the basis of assessing the land owners for all proposed new work.

The map, mentioned above, is entitled "Topographical and Contour Map of Reclamation District No. 684 . . . . prepared by Hunter and Morton" and is presented herewith marked "Exhibit A" and made a part of this report. A photograph of this map is attached to and also made a part of this report. This map shows the existing system and works of reclamation and also all proposed new work. A profile of the levee, showing the location, nature and amount of proposed levee work is also attached to and made a part of this report.

#### RECOMMENDED NEW WORK ON DRAINAGE SYSTEM.

Figures and letters refer to said Topographical and contour map and the photograph thereof.

1. From H to 4, a distance of 12,000 feet, a new canal to be constructed to width of 20 feet and depth of about 9 feet -- the elevation of bottom of



canal being 4.3 feet on our system of elevation at point H and sloping uniformly to an elevation of 1.46 at point 4 in a distance of 12,000 feet.

Cubic yards of excavation - - - 78,450

2. From H to L, a distance of 4,100 feet, a new canal to be constructed to width of 20 feet and depth of about 8.5 feet, the elevation of the bottom of the canal being 4.3 feet on our system of elevation at point H and sloping uniformly to an elevation of 5.2 feet at point L.

Cubic yards of excavation - - - 26,000

3. From F to G, a distance of 2,100 feet, a new canal to be constructed to width of 6 feet and depth of about 8.5 feet, the elevation of the bottom of the canal being 6.9 feet at point F on our system of elevation and sloping uniformly to an elevation of 7.3 feet at point G.

Cubic yards of excavation - - - 4,250

Total Excavations - - - - - 108,700

at 7 1/2 cents = \$8,152.50

Our system of elevation is based on adding 20 feet to U. S. Geological Survey elevations.

#### RECOMMENDED NEW WORK ON LEVEES.

The attached profile with cross-sections shows the location of the work to be done.

The levee is to be strengthened on the land side by adding more material where necessary to make the slope as flat, at least, as 1 on 2. The height and top width of levee is, in general, sufficient.



The following table shows the yardage necessary to make the levee slope 1 on 2 on land side.

West from Black Slough Landing towards Holt.

Mile	Fill Cubic Yards
1	0
2	3630
3	9500
4	10740
5	9730
6	5660
7	9320
8	14130
9	3530

East from Black Slough Landing to  
Jacobs Road

1	1370
2	7870
3	8760
4	5080
5	1300

Total 90620 Cubic yards

This yardage at 7 cents per cubic yard,

90,620 at \$0.07 -----	\$6343.00
Surveying & supervision at 5% -----	317.00
Total Levee cost -----	\$6660.00

#### IMPROVEMENTS RECOMMENDED FOR PRESENT CANAL SYSTEM.

From L to E the canal to be enlarged to a width of 20 feet and from E to F the width to be 10 feet, sloping uniformly from F to L from elevations given above for said points.

Cubic yards Excavation - - - - 8,000

From 1 to 4 the canal to be at least 20 feet wide and deepened to elevation of zero at 1 with uniform slope to elevation of 1.46 feet at 4 -- all on our system of elevation.

Cubic yards Excavation - - - - -32,340

Total excavation - - - - -40,340

Estimated cost of Improvements  
40,340 Cubic Yards at 7 1/2 cents = \$3,025.50



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# MAINTENANCE AND OPERATION OF DRAINAGE CANALS FOR 1 YEAR.

Estimated cost of cleaning canals, removing obstructions due to caving, renewal of wooden structures, operation of canals - , - - . - - - - - - - - - - - - - - - - \$5000.00

## MAINTENANCE AND OPERATION OF PUMPING PLANTS FOR 1 YEAR.

Estimated cost of employees' wages, electric power and all other costs entering into maintenance and operation  
\$5100.00

### SUMMARY OF COSTS.

Construction of New Canals	-	-	-	-	-	-	\$8,152.50
Improvement of Present Canals	-	-	-	-	-	-	3,025.50
Strengthening of Levees	-	-	-	-	-	-	6,660.00
Maintenance & operation for 1 year							
Drainage Canals	-	-	-	-	-	-	5,000.00
Pumping Plants	-	-	-	-	-	-	<u>5,100.00</u>
							\$27,938.00

Respectfully submitted,

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Civil Engineer.





